State of California
AIR RESOURCES BOARD

Executive Order G-70-163-AA

Modification to the Certification of the OPW VaporEZ Phase II Vapor Recovery System

WHEREAS, the California Air Resources Board ("the Board" or "CARB") has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations (Phase II vapor recovery systems) in its "Certification and Test Procedures for Vapor Recovery Systems" (the "Certification Procedures") as last amended April 12, 1996, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, the Board has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, test procedures for determining the compliance of Phase II vapor recovery systems with emission standards in its "Certification and Test Procedures for Vapor Recovery Systems" (the "Test Procedures") as adopted April 12, 1996, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, OPW Fueling Components ("OPW"), requested and was granted certification of the VaporEZ Phase II vapor recovery system ("VaporEZ system") pursuant to the Certification Procedures and Test Procedures on March 31, 1995;

WHEREAS, OPW requested modification to the certification of the VaporEZ system to allow manifolding at the vent lines in lieu of an underground manifold for existing installations, an additional pump manifold configuration, and an increase to the back pressure limitation;

WHEREAS, the requested modifications to the certification of the VaporEZ system has been evaluated pursuant the Board's Certification Procedures;

WHEREAS, the Certification Procedures (CP-201) provides that the Executive Officer shall issue an order of certification if he or she determines that the vapor recovery system conforms to all of the requirements set forth in the Certification Procedures; and

WHEREAS, I, Michael P. Kenny, Air Resources Board Executive Officer, find that the VaporEZ system conforms with all the requirements set forth in the Certification Procedures, and results in a vapor recovery system which is at least 95 percent effective for attendant and/or self-serve use at gasoline service stations when used in conjunction with a Phase I vapor recovery system which has been certified by the Board.

NOW, THEREFORE, IT IS HEREBY ORDERED that the VaporEZ system is certified to be at least 95 percent effective in attended and/or self-serve mode when used with a CARB certified Phase I vapor recovery system as specified in Exhibit 1 of this Order. **Fugitive emissions which may occur when the underground storage tanks are under positive pressure have not been quantified and were not included in the calculation of system effectiveness. Compatibility of this system with the onboard refueling vapor**

recovery systems has not been evaluated. Exhibit 1 contains a list of the equipment certified for use with the VaporEZ system. Exhibit 2 contains installation and performance specifications for the equipment listed in Exhibit 1. Exhibit 3 contains a static decay test procedure.

IT IS FURTHER ORDERED that the dispensing rate for installations of the VaporEZ system shall not exceed ten (10.0) gallons per minute when only one nozzle associated with the product supply pump is operating. This is consistent with the flowrate limitation imposed by United States Environmental Protection Agency as specified in the Federal Register, Volume 58, Number 55, page 16019. Exhibit 4 contains a procedure for verifying dispensing rate.

IT IS FURTHER ORDERED that compliance with the certification requirements and rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the State Fire Marshal's Office, and the Division of Occupational Safety and Health of the Department of Industrial Relations is made a condition of this certification.

IT IS FURTHER ORDERED that each vapor pump shall be 100 percent performance checked at the factory, including verification that the vapor recovery pump performance is within the range specified in Exhibit 2 of this Order.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. The VaporEZ system shall be installed only in facilities which are capable of demonstrating on-going compliance with the vapor integrity requirements contained in Exhibit 3 of this Order. The owner or operator of the installation shall conduct, and pass, a static pressure decay test at least once in each twelve month period, and the results shall be made available to the district upon request within fifteen days after the test is conducted, or within fifteen days of the request. Alternative test procedures may be used if determined by the Executive Officer to yield comparable results.

IT IS FURTHER ORDERED that all nozzles approved for use with the VaporEZ system shall be 100 percent performance checked at the factory including checks of the integrity of the vapor path, as specified in Exhibit 2 of this Order, and proper functioning of all automatic shut-off mechanisms.

IT IS FURTHER ORDERED that the system, as installed, shall comply with the procedures and performance standards which the test installation was required to meet during certification testing. Local districts may adopt stricter procedures or performance standards in accordance with the California Health and Safety Code section 41954 (g). Failure to demonstrate compliance with procedures or performance standards which are stricter than those imposed during certification testing does not, per se, constitute failure of the VaporEZ system to meet the terms and conditions of this Executive Order. If, in the judgment of the Executive Officer, a significant fraction of installations fail to meet the specifications of this certification, or if a significant portion of the vehicle population is found to have configurations which significantly impair the system's collection efficiency, the certification itself may be subject to modification, suspension or revocation.

IT IS FURTHER ORDERED that the certified VaporEZ system shall be performance tested during installation for ability to dispense gasoline and collect vapors without difficulty in the presence of the station operator, owner or designee. The station operator, owner or designee shall be provided with copies of the installation and maintenance manuals for the VaporEZ

proper use of the VaporEZ system, its repair and maintenance, and where system replacement and system components can be readily obtained.

IT IS FURTHER ORDERED that revision to the certification and/or test procedures relevant to this certification may be the basis for evaluation of the system and may constitute grounds for modification, suspension or revocation of this certification.

IT IS FURTHER ORDERED that the certified VaporEZ system shall be warranted in writing, for at least one year, to the ultimate purchaser and each subsequent purchaser, that the vapor recovery system is designed, built and equipped so as to conform at the time of original installation or sale with the applicable regulations and is free from defects in materials and workmanship which would cause the vapor recovery system to fail to conform with applicable regulations. Copies of the manufacturer's warranty for the VaporEZ system shall be made available to the station manager, owner or operator. Hoses, nozzles and breakaway couplings shall be warranted to the ultimate purchaser as specified above for at least one year, or for the expected useful life, whichever is longer.

IT IS FURTHER ORDERED that the certified VaporEZ system shall, at a minimum, be operated in accordance with the manufacturer's recommended maintenance intervals and shall use the manufacturer's recommended operation, installation, and maintenance procedures.

IT IS FURTHER ORDERED that any alteration of the equipment, parts, design, or operation of the systems certified hereby is prohibited, and deemed inconsistent with this certification, unless such alteration has been approved by the Executive Officer or his/her designee.

IT IS FURTHER ORDERED that the VaporEZ certification Executive Order G-70-163, issued March 31, 1995, is hereby superseded by this Executive Order.

Executed at Sacramento, California, this 4th day of September, 1996.

Michael P. Kenny
Executive Officer

Attachments

Executive Order G-70-163-AA

Exhibit 1

VaporEZ System Equipment List

Component	Manufacturer/Model	State Fire Marshal Identification Number
Nozzle	OPW 11VAI-xx (Figure 1A) with vapor valve and ECD* (not optional) xx = 63 (15/16" OD spout, hold open latch (HOL)) 68 (13/16" OD spout, HOL) 83 (15/16" OD spout, no HOL) 88 (13/16" OD spout, no HOL) * ECD: Efficiency Compliance Device	005:008:050
Inverted Coaxial Hose	Catlow Vapor Mate	005:033:005
	Dayco 7282 Superflex 2000	005:033:005
	Dayco 7292 Superflex 4000	005:033:006
	Dayco 7246 Flex-Ever Ultimate	005:033:007
	Goodyear Flexsteel	005:036:002
	GT Sales/Hewitt Superflex 2000	005:033:005
	Thermoid Hi-Vac	005:037:003
	Thermoid Hi-Vac S	005:037:004
	VST VSTaflex	005:052:001
	VST VST-IS-BK	005:044:004
	VST VST-CIS	005:052:001
	OR Any inverted coaxial hose CARB-certified for use with the VaporEZ system.	
Breakaway Couplings	Catlow AV2001	005:030:006
	Catlow AVR200S	005:030:010
	Emco Wheaton A5219-001	005:030:010
	Husky 4034	005:021:009
	OPW 66CIP	005:030:006
	OPW 66FLB (w/ Flow Limiter)	005:008:055
	OPW 66CAS	005:008:056
	Richards Industries	
	VA-50	005:031:007
	VA-50B	005:031:014
	VA-60	005:031:009
	STVA (w/ Swivel)	005:031:016
	OR Any inverted coaxial breakaway with a vapor valve which is CARB-certified for use with the VaporEZ system.	

Swivels	Richards MFVA	005:031:015
	OR	
	Any inverted coaxial swivel which is CARB-certified for use with the VaporEZ system.	
Flow Control Units	OPW 66FL	005:008:054
	OPW 66FD	005:008:054
	Husky 5837	005:021:012
	OR	
	Any inverted coaxial flow control unit which is CARB-certified for use with the VaporEZ system.	
Vapor Pumps	Blackmer hydraulically driven vapor pump with a rotary vane motor. Model Number: VRFO, ID Number 1,2,3,4 or 5 (See Figure 1B)	005:008:053
Dispensers	Any dispenser which complies with the configurations and requirements of Figure 1C.	
Pressure/Vacuum Valve	OPW 523LP, 523LPS (settings as specified below)	005:008:051
	Hazlett H-PVB-1 Gold label (settings as specified below)	005:017:004
	Morrison Brothers 749CRB0600 AV (settings as specified below)	005:041:001
	Morrison Brothers 749CRBS0600 AV (settings as specified below)	005:041:001
	OR	
	Any CARB-certified valve with the following pressure and vacuum settings, in inches water column (wc):	
	Pressure: three plus or minus one-half inches (3.0 ± 0.5") water column. Vacuum: eight plus or minus two inches (8 ± 2") water column.	
Phase I Product Adaptors	Any CARB-certified rotatable Phase I product adaptor such as the OPW 61SA.	
	Note: For systems installed before two CARB-certified rotatable Phase I product adaptors are available, or within sixty days after that date, any standard Phase I product adaptor may be used for a period not to exceed four years from the date the second rotatable Phase I product adaptor was certified. Local districts may require earlier replacement of the standard Phase I product adaptors.	